

WHAT IS CLAIMED IS:

- 1 1. A propulsion system comprising:
 - 2 an airflow inducement mechanism;
 - 3 a coanda comprising a leading edge and a trailing edge;
 - 4 a wing comprising a leading edge and a trailing edge; and
 - 5 a base having a curved surface;
 - 6 the coanda is located adjacent the airflow inducement mechanism;
 - 7 the wing is located adjacent the coanda such that there is a gap between the
 - 8 coanda and the wing;
 - 9 wherein the coanda and wing are mounted above the curved surface so that it
 - 10 defines a passageway between the curved surface and the wing and the coanda such that a
 - 11 first airflow generated by the airflow inducement mechanism flows through the
 - 12 passageway and induces a second airflow through the gap between the coanda and the
 - 13 wing, the second airflow creates a venturi in the passageway causing the velocity and
 - 14 density of the first airflow to increase.
- 1 2. A propulsion system as claimed in claim 1, further comprising a moveable flap
- 2 attached to the trailing edge of the coanda.
- 1 3. A propulsion system as claimed in claim 2, wherein the moveable flap is
- 2 comprised of a plurality of flaps.
- 1 4. A propulsion system as claimed in claim 1, further comprising a moveable flap
- 2 attached to the trailing edge of the wing.
- 1 5. A propulsion system as claimed in claim 4, wherein the moveable flap is
- 2 comprised of a plurality of flaps.

- 1 6. A propulsion system as claimed in claim 1, further comprising a movable flap
2 attached to the trailing edge of the curved surface.
- 1 7. A propulsion system as claimed in claim 6, wherein the moveable flap is
2 comprised of a plurality of flaps.
- 1 8. A propulsion system as claimed in claim 1, wherein the propulsion system is
2 attached to a wheeled conveyance.
- 1 9. A propulsion system as claimed in claim 1, wherein the propulsion system is
2 attached to a watercraft.
- 1 10. A propulsion system as claimed in claim 1, wherein the propulsion system is
2 attached to a hovercraft.
- 1 11. A propulsion system as claimed in claim 1, wherein the propulsion system is
2 rotationally attached to a wheeled conveyance.
- 1 12. A propulsion system as claimed in claim 1, wherein the propulsion system is
2 rotationally attached to a watercraft.
- 1 13. A propulsion system as claimed in claim 1, wherein the propulsion system is
2 rotationally attached to a hovercraft.
- 1 14. A propulsion system as claimed in claim 1, wherein the airflow inducement
2 mechanism is a fan driven by an internal combustion engine.
- 1 15. A propulsion system as claimed in claim 1, wherein the airflow inducement
2 mechanism is a fan driven by an electric motor.
- 1 16. A propulsion system as claimed in claim 1, wherein the airflow inducement
2 mechanism is a fan driven by a hydraulic motor.

1 17. A propulsion system as claimed in claim 1, wherein the airflow inducement
2 mechanism is a fan driven by a pneumatic motor.

1 18. A propulsion system comprising:

2 an airflow inducement mechanism;

3 a coanda comprising a leading edge and a trailing edge;

4 a wing comprising a leading edge and a trailing edge;

5 a base having a curved surface with a trailing edge;

6 one or more flaps attached to the trailing edge of the coanda;

7 one or more flaps attached to the trailing edge of the wing; and

8 one or more flaps attached to the trailing edge of the curved surface;

9 wherein the coanda is located adjacent the airflow inducement mechanism;

10 the wing is located adjacent the coanda such that there is a gap between the
11 coanda and the wing;

12 wherein the coanda and wing are mounted above the curved surface so that it
13 defines a passageway between the curved surface and the wing and the coanda such that a
14 first airflow generated by the airflow inducement mechanism flows through the
15 passageway and induces a second airflow through the gap between the coanda and the
16 wing, the second airflow creates a venturi in the passageway causing the velocity and
17 density of the first airflow to increase.

1 19. A crane comprising:

2 a generally circular shaped body with a center and a curved surface;

3 the curved surface having a trailing edge;

4 an air flow inducement mechanism located above the curved surface at the center
5 of the body;

6 a coanda extending radially outward from the center of the body and surrounding
7 the airflow inducement mechanism and having an interior surface, an exterior surface, a
8 trailing edge; and

9 a wing extending radially around the coanda and having a trailing edge;

10 wherein the coanda and wing are mounted above the curved surface so that it
11 defines a passageway between the curved surface and the wing and the coanda such that a
12 first airflow generated by the airflow inducement mechanism flows through the
13 passageway and induces a second airflow through the gap between the coanda and the
14 wing, the second airflow creates a venturi in the passageway causing the velocity and
15 density of the first airflow to increase.

1 20. A crane as claimed in claim 19, further comprising a moveable flap attached to
2 the trailing edge of the coanda.

1 21. A crane as claimed in claim 20, wherein the moveable flap is comprised of a
2 plurality of flaps.

1 22. A crane as claimed in claim 19, further comprising a moveable flap attached to
2 the trailing edge of the wing.

1 23. A crane as claimed in claim 22, wherein the moveable flap is comprised of a
2 plurality of flaps.

1 24. A crane as claimed in claim 19, wherein the airflow inducement mechanism is a
2 fan driven by an internal combustion engine.

- 1 25. A crane as claimed in claim 19, wherein the airflow inducement mechanism is a
2 fan driven by an electric motor.
- 1 26. A crane as claimed in claim 19, wherein the airflow inducement mechanism is a
2 fan driven by a hydraulic motor.
- 1 27. A crane as claimed in claim 19, wherein the airflow inducement mechanism is a
2 fan driven by a pneumatic motor.
- 1 28. A crane as claimed in claim 19, further comprising a moveable flap attached to
2 the trailing edge of the curved surface.
- 1 29. A crane as claimed in claim 28, wherein the moveable flap is comprised of a
2 plurality of flaps.
- 1 30. A crane as claimed in claim 19, further comprising a bypass between the interior
2 surface of the coanda and the exterior surface of the coanda.
- 1 31. A crane as claimed in claim 30, further comprising a moveable gate located in the
2 bypass.
- 1 32. A crane as claimed in claim 31, wherein the moveable gate is operated by
2 hydraulics.
- 1 33. A crane as claimed in claim 31, wherein the moveable gate is operated by
2 pneumatics.
- 1 34. A crane as claimed in claim 31, wherein the moveable gate is operated by a
2 mechanical linkage.

1 35. A crane comprising:
2 a generally circular shaped body with a center and a curved surface;
3 an air flow inducement mechanism located above the curved surface at the center
4 of the body;
5 the curved surface having a trailing edge;
6 a coanda extending radially outward from the center of the body and surrounding
7 the airflow inducement mechanism and having an interior surface, an exterior surface and
8 a trailing edge;
9 a wing extending radially around the coanda and having a trailing edge;
10 one or more flaps moveable attached to the trailing edge of the coanda;
11 one or more flaps moveable attached to the trailing edge of the wing;
12 one or more flaps moveably attached to the trailing edge of the curved surface;
13 and
14 a bypass between the interior surface of the coanda and the exterior surface of the
15 coanda, the bypass having a moveable gate;
16 wherein the coanda and wing are mounted above the curved surface so that it
17 defines a passageway between the curved surface and the wing and the coanda such that a
18 first airflow generated by the airflow inducement mechanism flows through the
19 passageway and induces a second airflow through the gap between the coanda and the
20 wing, the second airflow creates a venturi in the passageway causing the velocity and
21 density of the first airflow to increase.